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EXAMINER

ZERVIGON, RUDY

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 11/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/624,728	Applicant(s) WANG, ALBERT	
	Examiner Rudy Zervigon	Art Unit 1763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-12 and 18-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-12 and 18-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1, 3-12, 18-25 are directed to the same invention as that of claims 1-28 of commonly assigned USPat. US 6,273,956 B1, US 6,228,773 B1. The issue of priority under 35 U.S.C. 102(g) and possibly 35 U.S.C. 102(f) of this single invention must be resolved.

Since the U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302), the assignee is required to state which entity is the prior inventor of the conflicting subject matter. A terminal disclaimer has no effect in this situation since the basis for refusing more than one patent is priority of invention under 35 U.S.C. 102(f) or (g) and not an extension of monopoly.

Failure to comply with this requirement will result in a holding of abandonment of this application.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

Art Unit: 1763

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1, 3-12, 18-25 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-28 of U.S. Patent No. US 6,273,956 B1. Cox teaches in claim 14, the added claim 1 limitation of “..the throttle valve (45, 38, 56; Figure 15) configured to regulate the pressure”. Although the conflicting claims are not identical, they are not patentably distinct from each other because although Cox does not claim the added claim 12 limitation of “the computer configured to control the pump...”, it would have been obvious to one of ordinary skill in the art at the time the invention was made to “program” Cox’s computer as taught by Cox (claims 1, 7, 9, 10, 13). Motivation to “program” Cox’s computer is for process automation and optimization. It would be obvious to those of ordinary skill in the art to optimize the operation of the claimed invention (In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980); In re Hoeschele, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969); Merck & Co. Inc. v. Biocraft Laboratories Inc., 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989); In re Kulling, 897 F.2d 1147, 14 USPQ2d 1056 (Fed. Cir. 1990), MPEP 2144.05).

5. Claims 1, 3-12, 18-25 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-28 of U.S. Patent No. US 6,228,773 B1. Cox teaches in claim 14, the added claim 1 limitation of “..the throttle valve (45, 38, 56; Figure 15) configured to regulate the pressure”. Although the conflicting claims are not identical, they are not patentably distinct from each other because although Cox does not claim the added claim 12

limitation of “the computer configured to control the pump...”, it would have been obvious to one of ordinary skill in the art at the time the invention was made to “program” Cox’s computer as taught by Cox (claims 1, 7, 9, 10, 13). Motivation to “program” Cox’s computer is for process automation and optimization. It would be obvious to those of ordinary skill in the art to optimize the operation of the claimed invention (In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980); In re Hoeschele, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969); Merck & Co. Inc. v. Biocraft Laboratories Inc., 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989); In re Kulling, 897 F.2d 1147, 14 USPQ2d 1056 (Fed. Cir. 1990), MPEP 2144.05).

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1, and 3-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishihara Yasumasa (JP08127861)¹ in view of Jansen; Frank (US 4,612,207 A). Yasumasa teaches a photoresist ashing system (Figure 1; abstract) comprising two processing chambers (any two of 3A-C; Figure 1; abstract) configured for alternate operation and no more than a single pump (“DP”; Figure 1; abstract) in fluid communication with the two chambers (any two of 3A-C; Figure 1; abstract), the pump (“DP”; Figure 1; abstract) being configured to perform both pump (“DP”; Figure 1; abstract) down and process pumping (“DP”; Figure 1; abstract) of the two chambers (any two of 3A-C; Figure 1; abstract), as claimed by claim 1. Applicant’s claim limitations of “a photoresist ashing system”, “alternate operation”, and “being configured

¹ IDS reference of paper number 25042005. See provided machine translation from <http://www4.ipdl.ncipi.go.jp/Tokujitu/PAJdetail.ipdl?N0000=60&N0120=01&N2001=2&N3001=H08-127861>

Art Unit: 1763

to perform both pump down and process pumping of the two chambers” are claim requirements of intended use. Further, it has been held that claim language that simply specifies an intended use or field of use for the invention generally will not limit the scope of a claim (Walter , 618 F.2d at 769, 205 USPQ at 409; MPEP 2106). Additionally, in apparatus claims, intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim (In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto , 136 USPQ 458, 459 (CCPA 1963); MPEP2111.02).

Yasumasa further teaches:

- i. The system (Figure 1; abstract) of claim 1, wherein the single pump (“DP”; Figure 1; abstract) is a dry pump (“DP”; Figure 1; abstract), as claimed by claim 3
- ii. The apparatus of claim 1, wherein the chambers (any two of 3A-C; Figure 1; abstract) are adjacent to each other, as claimed by claim 6
- iii. The apparatus of claim 1 wherein the processing chambers (any two of 3A-C; Figure 1; abstract) are each configured to receive a single silicon wafer at a time, and the processing chambers (any two of 3A-C; Figure 1; abstract) each comprise a downstream plasma reactor, as claimed by claim 10
- iv. The apparatus of claim 1 wherein the processing chambers (any two of 3A-C; Figure 1; abstract) are each configured to receive a single silicon wafer at a time, and the processing chambers (any two of 3A-C; Figure 1; abstract) each comprise an in-chamber plasma reactor, as claimed by claim 11

Art Unit: 1763

Yasumasa does not teach a throttle valve (45, 38, 56; Figure 15) simultaneously downstream of Yasumasa's both chambers (any two of 3A-C; Figure 1; abstract) and upstream of Yasumasa's pump ("DP"; Figure 1; abstract). Yasumasa further does not teach

- i. The system (Figure 1; abstract) of claim 1, further comprising only one isolation valve between the pump and a first one of the chambers, as claimed by claim 4
- ii. The system (Figure 1; abstract) of claim 1, further comprising only one isolation valve between the pump and a second one of the chambers, as claimed by claim 5

Jansen teaches a wafer processing apparatus (Figure 1) including a throttle valve (45, 38, 56; Figure 15) (19; Figure 1) downstream of Jansen's chamber (15; Figure 1) and upstream of Jansen's pump (18; Figure 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add Jansen's throttle valve (45, 38, 56; Figure 15) to Yasumasa's apparatus.

Motivation to add Jansen's throttle valve (45, 38, 56; Figure 15) to Yasumasa's apparatus is for controlling processing pressure to desired values as taught by Jansen (column 5; lines 36-45).

8. Claims 12, and 18-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cox; Gerald M. (US 6,228,773 B1) in view of Khan; Anisul et al. (US 6,802,933 B2). Cox teaches a dual chamber processing system (Figures 4, 6, 15; See common numbers) for continuously processing a plurality of work pieces (31,33; Figure 15) comprising: a common power source (22; column 7, line 1 – column 8, line 20) switchable (22; column 7, line 1 – column 8, line 20) between a first plasma applicator (26; Figure 15) of a first chamber (30; Figure 15; column 8; lines 25-45) and a second plasma applicator (28; Figure 15) of a second chamber (32; Figure 15; column 8; lines 25-45), the first chamber (30; Figure 15; column 8; lines

Art Unit: 1763

25-45) for processing a second workpiece in a vacuum to completion therein, when the power source (22; column 7, line 1 – column 8, line 20) is applied thereto and switched ON.

Applicant's claim limitations of:

“a robot (15; column 8, lines 55-65; Figure 4,6,15) configured to remove at substantially atmospheric pressure a first workpiece from the second chamber (32; Figure 15; column 8; lines 25-45) after processing the first workpieces (31,33; Figure 15) the robot (15; column 8, lines 55-65; Figure 4,6,15) configured to reload the second chamber (32; Figure 15; column 8; lines 25-45) with a third workpiece to be processed while the second workpiece is being processed in the first chamber (30; Figure 15; column 8; lines 25-45), the robot (15; column 8, lines 55-65; Figure 4,6,15) configured to remove at substantially atmospheric pressure the second workpiece from the first chamber (30; Figure 15; column 8; lines 25-45) after processing the first workpiece, the robot (15; column 8, lines 55-65; Figure 4,6,15) configured to reload the first chamber (30; Figure 15; column 8; lines 25-45) with a fourth workpiece to be processed while the third workpiece is being processed in the second chamber (32; Figure 15; column 8; lines 25-45) the second chamber (32; Figure 15; column 8; lines 25-45) for processing the third workpiece in a vacuum to completion therein when the power source (22; column 7, line 1 – column 8, line 20) is applied to the second plasma applicator (28; Figure 15) and switched ON” are claim limitations of intended use of the pending apparatus claims. Further, it has been held that claim language that simply specifies an intended use or field of use for the invention generally will not limit the scope of a claim (Walter , 618 F.2d at 769, 205 USPQ at 409; MPEP 2106). Additionally, in apparatus claims, intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from

Art Unit: 1763

the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim (In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto, 136 USPQ 458, 459 (CCPA 1963); MPEP2111.02).

Cox further teaches:

- i. exactly one pump (34; Figure 15; column 5; lines 55-67) adapted to be in fluid communication with the first and second chambers (30, 32; Figure 15), the pump (34; Figure 15; column 5; lines 55-67) being configured to perform both process pumping and pump-down pumping of both chambers
- ii. The system of Claim 12, wherein the single pump (34; Figure 15; column 5; lines 55-67) is a dry pump (34; Figure 15; column 5; lines 55-67), as claimed by claim 18
- iii. The system of Claim 12, wherein the first chamber (30; Figure 15; column 8; lines 25-45) and the second chamber (32; Figure 15; column 8; lines 25-45) are adjacent to each other, as claimed by claim 21
- iv. The system of Claim 12, wherein the power source (22; column 7, line 1 – column 8, line 20) is a microwave power source (22; column 7, line 1 – column 8, line 20), as claimed by claim 22
- v. The system of Claim 12, wherein the chambers (30,32; Figure 15) are each configured to receive a single silicon wafer at a time, and the chambers (30,32; Figure 15) are each downstream of a plasma reactor (26; Figure 15), as claimed by claim 24
- vi. The system of Claim 12, wherein the chambers (30,32; Figure 15) are each configured to receive a single silicon wafer at a time, and the chambers (30,32; Figure 15) each comprise an in situ plasma reactor (26; Figure 15), as claimed by claim 25

Art Unit: 1763

Cox does not teach

- i. a computer configured to repeatedly synchronously and alternately control the power source (22; column 7, line 1 – column 8, line 20) application, the robot (15; column 8, lines 55-65; Figure 4,6,15) movement, the chamber processing, and the pump (34; Figure 15; column 5; lines 55-67), the computer configured to control the pump (34; Figure 15; column 5; lines 55-67) and the robot (15; column 8, lines 55-65; Figure 4,6,15) to effect pump-down and subsequent process pumping of one of the chambers during simultaneous venting the workpiece removal and workpiece reloading of the other of the chambers such that said pump-down pumping of one of the chambers and said venting of the other of the chambers begin at substantially the same time, and the computer being configured to open the pump (34; Figure 15; column 5; lines 55-67) to fluid communication with only one of the chambers at a time, as claimed by claim 12.
- ii. The system of Claim 12, wherein the system further comprises only one isolation valve (45, 38, 56; Figure 15) between the pump (34; Figure 15; column 5; lines 55-67) and the first chamber (30; Figure 15; column 8; lines 25-45), as claimed by claim 19
- iii. The system of Claim 19, wherein the system further comprises only one isolation valve (58, 39, 47; Figure 15) between the pump (34; Figure 15; column 5; lines 55-67) and the second chamber (32; Figure 15; column 8; lines 25-45), as claimed by claim 20
- iv. The system of Claim 12, wherein the power source (22; column 7, line 1 – column 8, line 20) is a common radio frequency power source (22; column 7, line 1 – column 8, line 20) synchronously multiplexed between the two processing chambers, as claimed by claim 23

Art Unit: 1763

Khan teaches a computer controller (500; Figures 2B, 3B, 4, 5A) for process control of plural chambers (200, 300, 409; Figure 5A), robot (412; Figure 5A), and power (415; Figure 5A).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add Khan's computer controller method for automating Cox's above process components, and for Cox to use "only one isolation valve".

Motivation to add Khan's computer controller method for automating Cox's above process components, and for Cox to use "only one isolation valve" is for process automation as taught by Khan (column 25, line 48 – column 26, line 66) and for equipment economization. It would be obvious to those of ordinary skill in the art to optimize the operation of the claimed invention (In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980); In re Hoeschele, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969); Merck & Co. Inc. v. Biocraft Laboratories Inc., 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989); In re Kulling, 897 F.2d 1147, 14 USPQ2d 1056 (Fed. Cir. 1990), MPEP 2144.05). Further, it is established that the use of a one piece construction instead of interconnected components is obvious (In re Larson, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965), MPEP 2144.04).

9. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishihara Yasumasa (JP08127861)² in view of Jansen; Frank (US 4,612,207 A) and Cox; Gerald M. (US 6,228,773 B1). Yasumasa and Jansen are discussed above. Yasumasa further teaches a common radio frequency power source ("RF", Figures 1-3). Yasumasa and Jansen do not teach a remote plasma applicator. Cox teaches remote plasma applicators (26,28; Figure 15).

² IDS reference of paper number 25042005. See provided machine translation from <http://www4.ipdl.ncipi.go.jp/Tokujitu/PAJdetail.ipdl?N0000=60&N0120=01&N2001=2&N3001=H08-127861>

Art Unit: 1763

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add Cox's remote plasma applicators to Yasumasa and Jansen apparatus.

Motivation to add Cox's remote plasma applicators to Yasumasa and Jansen apparatus is for remote plasma processing of substrates as taught by Cox (claim 7).

Response to Arguments

10. Applicant's arguments filed August 14, 2006 have been fully considered but they are not persuasive.

11. PTO internal IFW indicates a paper filed August 14, 2006 that was part of a prior interview summary is titled Rule 130, 131, or 132 affidavit. The Examiner does not consider this transmission to be a Rule 130, 131, or 132 affidavit because there are no papers filed after the Examiner's May 12, 2006 action formally conveying a Rule 130, 131, or 132 affidavit. Further, such affidavits would have no relevance against the Cox references each of which are statutory bars.

12. With respect to Applicant's arguments centered on the Examiner's sustained 102(f),(g) rejections, the Examiner cites Figure 15 in each of the USPat. US 6,273,956 B1, US 6,228,773 B1. Elements cited in each Figure 15 of the 102 references correspond directly to Applicant's invention of Figure 2A of the instant application. Specifically, Applicants state:

“

Mr. Gill argued that the 102(f)/(g) rejection can be overcome by showing that Cox's claimed invention and the presently claimed invention are substantially different in nature and scope. The Examiner disagreed without articulating any alternative standard for overcoming the rejection.

“

In response, the Examiner's articulation of how to overcome the 102(f)/(g) rejection is clearly demonstrated in the interview summary of August 4, 2006 which was specifically conveyed to Applicant's during the interview. Note that the Examiner's interview summary citation to MPEP 2137 does not include "showing that Cox's claimed invention and the presently claimed invention are substantially different in nature and scope" as a means to overcome a 102(f) rejection. However, because each of USPat. US 6,273,956 B1, US 6,228,773 B1 are statutory bars, Rule 130, 131, or 132 affidavits cannot be used to overcome the 102(f) rejections.

13. Applicant further states:

“

Applicant notes that the two Cox patents are prior art to the present application under 35 U.S.C. 102(b), and as such there is no real question of whether Applicant derived the claimed invention from Cox. Cox was in the public domain when the present application was filed. In fact, the present application acknowledges the Cox patents in paragraph (0003) of the specification. Applicant asserts that the pending claims are improvements over the Cox disclosure and should be evaluated in the context of 35 U.S.C. 102(b) and 103. The patentable improvements of the present claims over Cox are addressed below.

“

In response, the Examiner disagrees. The "improvements" Applicant refers to are not deemed to be patentable over the Cox references.

Applicant further states:

“

Art Unit: 1763

In this case, the Office Action does not provide sufficient evidence to suggest that Applicant derived his inventions from Cox. In particular, the Office Action does not show that Cox completely conceived the presently claimed inventions, or that any communication of such conception from Cox to Applicant was sufficient to enable one of ordinary skill in the art to construct and operate Applicant's inventions.

“

In response, the Examiner's prior rejections clearly demonstrate the similarity of identical components in the Cox references to identical components in the present Application.

Applicant states:

“

In supporting the 102(f)/(g) rejection of Claims 12 and 18-25, the Examiner alleges that Cox's teaching of a computer configured to operate under "near zero" overhead conditions effectively implies the limitations of the computer recited in the final subparagraph of Claim 12. Office Action at page 13. Applicant respectfully disagrees with the Examiner's contention, because "near zero overhead" does not teach or imply the specifically recited sequence of the "computer configured to. . ." language of Claim 12. As explained by Applicant's representative during the aforementioned telephonic interview, Cox defines "zero overhead" as conducting all overhead tasks in one chamber during processing in another chamber. Cox :773, col. 9, lines 42-48. Since Cox's definition of "overhead" includes pump-down pumping (Cox ¶773, col. 2, lines 44-52), Cox's disclosure of "zero overhead" involves simultaneous pump-down pumping in one chamber and process pumping in the other chamber. Based on Cox's definitions, Claim 12 does not encompass Cox's notion of a "zero overhead" system, because the claim requires pump-down

pumping and process pumping in one chamber during simultaneous venting, workpiece removal, and workpiece reloading in the other chamber.

“

In response, the Examiner disagrees with Applicant's characterization of Cox's "near zero" overhead conditions which implies the claimed "pump-down pumping and process pumping in one chamber during simultaneous venting, workpiece removal, and workpiece reloading in the other chamber. All processes, in conjunction, are effected to achieve Cox's "near zero" overhead conditions.

With respect to Applicant's arguments based on the Examiner's double patenting rejections, it was previously noted, in prior actions, the fact that *all* apparatus parts and corresponding Figure numbers claimed in the present application are *identical* to the Cox patents. As a result, a reiteration of said parts would be redundant.

Applicant's arguments centered on the Examiner's 103 rejections are reiterations of the above arguments based on Cox. The Examiner refers Applicant to the above stated rebuttals.

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

Art Unit: 1763

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Rudy Zervigon whose telephone number is (571) 272-1442. The examiner can normally be reached on a Monday through Thursday schedule from 8am through 7pm. The official fax phone number for the 1763 art unit is (571) 273-8300. Any Inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Chemical and Materials Engineering art unit receptionist at (571) 272-1700. If the examiner can not be reached please contact the examiner's supervisor, Parviz Hassanzadeh, at (571) 272-1435.



10/31/12